

Power Boiler and Heat Exchanger Manufacturing: 2002

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2002 Economic Census

Manufacturing

Industry Series



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U.S. Department of Commerce
Economics and Statistics Administration
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CONTENTS

Introduction to the Economic Census	v
Manufacturing	ix

Tables

1. Historical Statistics for the Industry: 2002 and Earlier Years ...	1
2. Industry Statistics for Selected States: 2002	2
3. Detailed Statistics by Industry: 2002	3
4. Industry Statistics by Employment Size: 2002.....	4
5. Industry Statistics by Primary Product Class Specialization: 2002	5
6a. Products Statistics: 2002 and 1997	6
6b. Product Class Shipments for Selected States: 2002 and 1997 .	8
7. Materials Consumed by Kind: 2002 and 1997.....	9

Appendixes

A. Explanation of Terms	A-1
B. NAICS Codes, Titles, and Descriptions	B-1
C. Methodology	C-1
D. Geographic Notes	--
E. Metropolitan and Micropolitan Statistical Areas	--
F. Comparability of Product Classes and Product Codes: 2002 to 1997	F-1

-- Not applicable for this report.

Table 1. Historical Statistics for the Industry: 2002 and Earlier Years

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry and year ¹	Com- panies ²	All estab- lish- ments ³	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)	
			Number ⁴	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)					
332410, Power boiler and heat exchanger manufacturing	2002..	292	330	20 103	804 155	14 052	28 934	481 157	1 971 471	1 671 922	3 644 867	144 276
	2001..	N	N	25 867	917 399	18 680	37 087	572 884	2 040 752	1 991 174	4 043 145	111 772
	2000..	N	N	26 695	930 366	18 863	37 507	565 578	2 024 706	1 966 806	3 989 040	97 268
	1999..	N	N	26 789	940 570	19 072	37 967	568 906	2 017 768	1 893 889	3 935 170	137 629
	1998..	N	N	28 604	999 352	20 591	42 841	608 412	2 226 085	1 977 808	4 159 324	122 638
	1997..	436	473	27 576	947 859	19 629	41 076	579 159	2 073 515	1 820 863	3 867 379	99 835

¹Statistics presented for years ending in 2 and 7 are census data. Interim census years are derived in a representative sample of manufacturing establishments canvassed in the Annual Survey of Manufactures (ASM).

²For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

³Includes establishments with payroll at any time during the year.

⁴Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 2. Industry Statistics for Selected States: 2002

[States that are a disclosure or with less than 100 employees are not shown. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

Industry and geographic area	E ¹	All establishments ²		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
		Total	With 20 employees or more	Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
332410, Power boiler and heat exchanger manufacturing												
United States	2	330	193	20 103	804 155	14 052	28 934	481 157	1 971 471	1 671 922	3 644 867	144 276
Alabama	1	5	2	194	8 628	145	327	5 197	13 730	12 336	25 611	504
California	4	21	8	617	26 727	418	856	15 564	66 925	38 396	108 179	3 572
Connecticut	4	7	4	184	7 129	129	264	3 990	15 535	11 071	26 496	1 099
Florida	5	7	3	245	7 797	195	405	5 258	16 463	8 919	25 717	737
Illinois	4	19	9	704	24 821	542	1 049	15 736	58 208	34 839	91 617	4 434
Indiana	1	7	6	518	16 493	404	794	11 505	35 866	25 888	63 123	5 274
Kansas	1	5	3	409	14 180	358	670	11 090	50 524	55 438	107 487	963
Louisiana	5	8	7	486	16 449	368	686	11 013	36 590	27 221	63 356	3 381
Massachusetts	1	7	5	308	14 355	160	331	6 907	80 348	17 231	93 334	534
Michigan	4	6	4	223	7 714	155	361	4 332	19 205	11 082	30 310	423
Minnesota	—	8	3	438	16 714	288	661	10 482	88 207	251 661	339 823	1 162
Missouri	—	4	3	345	13 038	281	539	9 566	34 781	25 385	60 050	2 551
New Jersey	5	9	4	338	15 068	221	460	7 412	40 126	27 880	68 148	1 922
New York	1	26	15	2 614	121 538	1 629	3 303	60 870	238 309	176 109	413 106	11 709
Ohio	—	15	9	1 316	63 723	690	1 530	28 914	144 399	121 106	267 805	16 562
Oklahoma	3	38	29	2 377	92 807	1 736	3 605	58 556	190 554	167 988	357 069	15 958
Oregon	1	4	4	338	14 235	198	361	6 797	29 177	66 214	95 776	4 091
Pennsylvania	1	15	11	993	36 920	649	1 265	20 040	135 810	86 041	210 598	5 539
Tennessee	—	8	4	632	20 293	529	1 019	14 378	60 488	57 122	117 951	2 052
Texas	3	42	26	2 414	97 124	1 766	3 924	63 924	244 723	161 219	404 565	16 907
Washington	7	7	2	229	8 547	171	366	5 476	18 067	13 839	31 895	995
Wisconsin	4	13	7	785	29 900	555	1 042	17 094	74 946	36 705	112 178	2 157

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1–10 to 19 percent; 2–20 to 29 percent; 3–30 to 39 percent; 4–40 to 49 percent; 5–50 to 59 percent; 6–60 to 69 percent; 7–70 to 79 percent; 8–80 to 89 percent; 9–90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 3. Detailed Statistics by Industry: 2002

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Item	Value
332410, Power boiler and heat exchanger manufacturing	
Companies ¹	number.. 292
All establishments ²	number.. 330
Establishments with 1 to 19 employees	number.. 137
Establishments with 20 to 99 employees	number.. 128
Establishments with 100 employees or more	number.. 65
All employees ³	number.. 20 103
Total compensation	\$1,000.. 1 009 893
Annual payroll	\$1,000.. 804 155
Total fringe benefits	\$1,000.. 205 738
Production workers, average for year	number.. 14 052
Production workers on March 12	number.. 14 732
Production workers on May 12	number.. 14 250
Production workers on August 12	number.. 13 699
Production workers on November 12	number.. 13 507
Production worker hours	1,000.. 28 934
Production worker wages	\$1,000.. 481 157
Total cost of materials	\$1,000.. 1 671 922
Materials, parts, containers, packaging, etc., used	\$1,000.. 1 313 185
Resales	\$1,000.. 145 397
Purchased fuels	\$1,000.. 17 217
Purchased electricity	\$1,000.. 30 139
Contract work	\$1,000.. 165 984
Quantity of electricity purchased for heat and power	1,000 kWh.. 491 169
Quantity of electricity generated less sold for heat and power	1,000 kWh.. S
Total value of shipments	\$1,000.. 3 644 867
Primary products value of shipments	\$1,000.. 3 226 609
Secondary products value of shipments	\$1,000.. 142 076
Total miscellaneous receipts	\$1,000.. 276 182
Value of resales	\$1,000.. 177 787
Contract receipts	\$1,000.. 44 650
Other miscellaneous receipts	\$1,000.. 53 745
Primary products specialization ratio	percent.. 96
Value of primary products shipments made in all industries	\$1,000.. 3 356 471
Value of primary products shipments made in this industry	\$1,000.. 3 226 609
Value of primary products shipments made in other industries	\$1,000.. 129 862
Coverage ratio	percent.. 96
Value added	\$1,000.. 1 971 471
Total inventories, beginning of year	\$1,000.. 416 535
Finished goods inventories	\$1,000.. 76 751
Work-in-process inventories	\$1,000.. 214 602
Materials and supplies inventories	\$1,000.. 125 182
Total inventories, end of year	\$1,000.. 406 171
Finished goods inventories	\$1,000.. 71 552
Work-in-process inventories	\$1,000.. 218 327
Materials and supplies inventories	\$1,000.. 116 292
Gross value of depreciable assets (acquisition costs) at beginning of year	\$1,000.. 1 303 930
Total capital expenditures (new and used)	\$1,000.. 144 276
Buildings and other structures (new and used)	\$1,000.. 24 409
Machinery and equipment (new and used)	\$1,000.. 119 867
Automobiles, trucks, etc., for highway use	\$1,000.. 8 005
Computers and peripheral data processing equipment	\$1,000.. 19 592
All other expenditures for machinery and equipment	\$1,000.. 92 270
Total retirements	\$1,000.. 92 181
Gross value of depreciable assets at end of year	\$1,000.. 1 356 025
Depreciation charges during year	\$1,000.. 83 817
Total rental payments	\$1,000.. 60 962
Buildings and other structures	\$1,000.. 20 237
Machinery and equipment	\$1,000.. 40 725
Total other expenses ⁴	\$1,000.. 198 893
Response coverage ratio ⁵	percent.. 78
Repair and maintenance services of buildings and/or machinery ⁴	\$1,000.. 26 007
Communications services ⁴	\$1,000.. 5 261
Legal services ⁴	\$1,000.. 3 837
Accounting, auditing, and bookkeeping services ⁴	\$1,000.. 2 181
Advertising and promotional services ⁴	\$1,000.. 2 833
Expensed computer hardware and supplies and purchased computer services ⁴	\$1,000.. 4 497
Refuse removal (including hazardous waste) services ⁴	\$1,000.. 2 917
Management consulting and administrative services ⁴	\$1,000.. 4 159
Taxes and license fees ⁴	\$1,000.. 7 068
All other expenses ⁴	\$1,000.. 140 131

¹For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Based on Annual Survey of Manufactures (ASM) sample data.

⁵A response coverage ratio is derived for this item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight) for those Annual Survey of Manufactures (ASM) establishments that reported to the weighted total employment for all ASM establishments classified in this industry.

Note 1: The amounts shown for other expenses reflect only those services that establishments purchase from other companies.

Note 2: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 4. Industry Statistics by Employment Size: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Employment size class	E ¹	All establishments ²	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
332410, Power boiler and heat exchanger manufacturing											
All establishments	2	330	20 103	804 155	14 052	28 934	481 157	1 971 471	1 671 922	3 644 867	144 276
Establishments with—											
1 to 4 employees	9	43	94	3 364	72	140	2 166	7 520	4 947	12 442	487
5 to 9 employees	7	45	308	12 662	231	471	7 889	30 016	22 922	52 175	2 035
10 to 19 employees	6	49	681	26 468	497	1 010	17 026	61 112	43 229	105 091	5 079
20 to 49 employees	2	69	g	D	D	D	D	D	D	D	D
50 to 99 employees	4	59	4 175	161 683	3 030	6 258	99 096	399 451	262 524	668 768	26 309
100 to 249 employees	1	53	8 368	325 506	5 909	12 220	200 307	846 322	898 472	1 731 986	77 832
250 to 499 employees	1	9	2 572	107 093	1 736	3 738	65 858	221 482	199 269	420 909	13 375
500 to 999 employees	—	3	g	D	D	D	D	D	D	D	D
1,000 to 2,499 employees	—	—	—	—	—	—	—	—	—	—	—
2,500 employees or more	—	—	—	—	—	—	—	—	—	—	—
Administrative records ⁴	9	80	498	19 018	392	792	12 469	44 135	31 880	76 014	3 098

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1—10 to 19 percent; 2—20 to 29 percent; 3—30 to 39 percent; 4—40 to 49 percent; 5—50 to 59 percent; 6—60 to 69 percent; 7—70 to 79 percent; 8—80 to 89 percent; 9—90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. Data are also included in respective size classes shown.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 5. Industry Statistics by Primary Product Class Specialization: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry or product class code	Industry or primary product class	All establishments ¹	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ²	Payroll (\$1,000)	Number ²	Hours (1,000)	Wages (\$1,000)				
332410	Power boiler and heat exchanger manufacturing	330	20 103	804 155	14 052	28 934	481 157	1 971 471	1 671 922	3 644 867	144 276
3324101	Fabricated heat exchangers and steam condensers (except nuclear applications)	99	8 765	344 446	5 989	12 494	205 638	863 252	727 744	1 569 223	76 377
3324105	Steel power boilers (stationary and marine), parts and attachments (except nuclear applications)	39	4 814	200 063	3 299	6 643	115 916	468 954	573 610	1 060 730	28 361
3324107	Nuclear reactor steam supply systems, heat exchangers and condensers, pressurizers, components, and auxiliary equipment	4	973	49 987	525	1 108	20 343	125 236	50 649	176 667	4 716

¹Includes establishments with payroll at any time during the year.

²Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6a. Products Statistics: 2002 and 1997

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	Number of companies with shipments of \$100,000 or more	Quantity of production for all purposes	Product shipments	
				Quantity	Value (\$1,000)
332410	Power boiler and heat exchanger manufacturing	2002.. N 1997.. N	X X	X X	3 356 471 3 601 322
3324101	Fabricated heat exchangers and steam condensers (except nuclear applications)	2002.. N 1997.. N	X X	X X	1 420 673 2 098 378
33241011	Fabricated bar tube industrial heat exchangers, closed types (except nuclear applications)	2002.. N 1997.. N	X X	X X	467 411 858 910
3324101101	Fabricated bar tube industrial heat exchangers, closed types (except nuclear applications)	2002.. 76 1997.. 128	X X	X X	467 411 858 910
33241012	Fabricated fin tube industrial heat exchangers, closed types (except nuclear applications)	2002.. N 1997.. N	X X	X X	566 954 929 260
3324101206	Fabricated fin tube industrial heat exchangers, closed types (except nuclear applications)	2002.. 63 1997.. 90	X X	X X	566 954 929 260
33241013	Fabricated steam condensers (except nuclear applications)	2002.. N 1997.. N	X X	X X	219 258 214 526
3324101311	Fabricated steam condensers (except nuclear applications)	2002.. 21 1997.. 32	X X	X X	219 258 214 526
3324101Y	Fabricated heat exchangers and steam condensers (except nuclear applications), nsk	2002.. N 1997.. N	X X	X X	167 050 95 682
3324101YVV	Fabricated heat exchangers and steam condensers (except nuclear applications), nsk	2002.. N 1997.. N	X X	X X	167 050 95 682
3324105	Steel power boilers (stationary and marine), parts and attachments (except nuclear applications)	2002.. N 1997.. N	X X	X X	933 058 874 577
33241051	Water tube steel, fire tube steam and vertical, and other power boilers (stationary and marine) (except nuclear applications)	2002.. N 1997.. N	X X	X X	580 045 447 568
3324105106	Water tube steel power boilers (stationary and marine), more than 15 p.s.i. steam working pressure, 100,000 lb per hour or less, saturated (except nuclear applications)	2002.. 5 1997.. 13	X X	X X	11 167 71 888
3324105111	Water tube steel power boilers (stationary and marine), more than 15 p.s.i. steam working pressure, 100,000 lb per hour or less, super heated (except nuclear applications)	2002.. 4 1997.. 9	X X	X X	3 229 94 006
3324105126	Water tube steel power boilers (stationary and marine), more than 15 p.s.i. steam working pressure, 100,001 lb per hour or more, saturated (except nuclear applications)	2002.. 3 1997.. 7	X X	X X	D 40 146
3324105131	Water tube steel power boilers (stationary and marine), more than 15 p.s.i. steam working pressure, 100,001 lb per hour or more, super heated (except nuclear applications)	2002.. 4 1997.. 8	X X	X X	D 93 210
3324105141	Other water tube steel power boilers (stationary and marine), parts and attachments (except nuclear applications)	2002.. 9 1997.. N	X X	X X	88 881 D
3324105169	Steel power boilers (stationary and marine), parts and attachments (except nuclear applications)	2002.. 10 1997.. N	X X	X X	25 424 N
3324105171	Fire tube steel power boilers (stationary and marine), scotch type pressure (except nuclear applications)	2002.. 3 1997.. 5	X X	X X	D 35 126
3324105181	Vertical and other fire tube type steel power boilers (stationary and marine) (except nuclear applications)	2002.. 6 1997.. 5	X X	X X	48 518 D
3324105186	Other steel power boilers (stationary and marine) (except nuclear applications)	2002.. 7 1997.. 14	X X	X X	123 598 60 594
33241052	Parts and attachments for steel power boilers (sold separately) (except nuclear applications)	2002.. N 1997.. N	X X	X X	302 528 355 447
3324105291	Parts and attachments for steel power boilers (sold separately) (except nuclear applications)	2002.. 26 1997.. 29	X X	X X	302 528 355 447
3324105Y	Steel power boilers (stationary and marine), parts and attachments (except nuclear applications), nsk	2002.. N 1997.. N	X X	X X	50 485 71 562
3324105YVV	Steel power boilers (stationary and marine), parts and attachments (except nuclear applications), nsk	2002.. N 1997.. N	X X	X X	50 485 71 562
3324107	Nuclear reactor steam supply systems, heat exchangers and condensers, pressurizers, components, and auxiliary equipment	2002.. N 1997.. N	X X	X X	204 298 N
33241071	Nuclear reactor steam supply systems, heat exchangers and condensers, pressurizers, components, and auxiliary equipment	2002.. N 1997.. N	X X	X X	204 298 N
3324107100	Nuclear reactor steam supply systems, heat exchangers and condensers, pressurizers, components, and auxiliary equipment	2002.. 12 1997.. N	X X	X X	204 298 N
332410W	Power boiler and heat exchanger manufacturing, nsk, total	2002.. N 1997.. N	X X	X X	798 442 628 367
332410WY	Power boiler and heat exchanger manufacturing, nsk, total	2002.. N 1997.. N	X X	X X	798 442 628 367

See footnotes at end of table.

Table 6a. **Products Statistics: 2002 and 1997—Con.**

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	Number of companies with shipments of \$100,000 or more	Quantity of production for all purposes	Product shipments	
				Quantity	Value (\$1,000)
332410	Power boiler and heat exchanger manufacturing—Con.				
332410W	Power boiler and heat exchanger manufacturing, nsk, total—Con.				
332410WY	Power boiler and heat exchanger manufacturing, nsk, total—Con.				
332410WYWW	Power boiler and heat exchanger manufacturing, nsk, for nonadministrative-record establishments	2002..	N	X	722 596
		1997..	N	X	597 379
332410WYWY	Power boiler and heat exchanger manufacturing, nsk, for administrative-record establishments	2002..	N	X	75 846
		1997..	N	X	30 988

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p–10 to 19 percent estimated; q–20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6b. Product Class Shipments for Selected States: 2002 and 1997

[Product classes covered are those that are economically significant and whose production is geographically dispersed, provided dispersion is not approximated by data in Table 2. Also, product classes are not shown if they are miscellaneous or "not specified by kind" classes. Statistics for some states are withheld because they are either less than \$2 million in product class shipments or they disclose data for individual companies in 2002. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographic definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS product class code	Product class and geographic area	Value of product shipments (\$1,000)
3324101	Fabricated heat exchangers and steam condensers (except nuclear applications)	
	United States	2002.. 1 420 673
		1997.. 2 098 378
	California	2002.. 29 421
		1997.. 64 959
	Illinois	2002.. 46 325
		1997.. 27 978
	Indiana	2002.. 32 005
		1997.. 31 361
	Louisiana	2002.. 16 029
		1997.. N
	Minnesota	2002.. 31 827
		1997.. 33 651
	Missouri	2002.. 50 503
		1997.. 61 751
	New Jersey	2002.. 19 560
		1997.. 60 585
	New York	2002.. 116 474
		1997.. 321 169
	Ohio	2002.. 30 998
		1997.. 71 794
	Oklahoma	2002.. 207 909
		1997.. 425 965
	Oregon	2002.. 23 256
		1997.. 17 543
	Pennsylvania	2002.. 104 495
		1997.. 94 259
	Texas	2002.. 188 146
		1997.. 309 590
	Wisconsin	2002.. 61 907
		1997.. 134 689
3324105	Steel power boilers (stationary and marine), parts and attachments (except nuclear applications)	
	United States	2002.. 933 058
		1997.. 874 577
	New York	2002.. 147 911
		1997.. 81 320
	Oklahoma	2002.. 44 290
		1997.. 12 736
	Pennsylvania	2002.. 37 483
		1997.. 70 272
	Texas	2002.. 17 539
		1997.. 101 527
3324107	Nuclear reactor steam supply systems, heat exchangers and condensers, pressurizers, components, and auxiliary equipment	
	United States	2002.. 204 298
		1997.. N

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 7. Materials Consumed by Kind: 2002 and 1997

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Material code	Material consumed	Quantity	Delivered cost (\$1,000)
332410	Power boiler and heat exchanger manufacturing		
00900001	Total materials .....2002..	X	1 313 185
	.....1997..	X	1 569 864
33290005	Fabricated metal pipe (excluding castings and forgings) .....2002..	X	50 783
	.....1997..	X	94 267
33291905	Fabricated metal valves and pipe fittings .....2002..	X	15 910
	.....1997..	X	24 901
332000A3	All other miscellaneous fabricated metal parts specially designed for steel power boilers (excluding castings and forgings) .....2002..	X	31 171
	.....1997..	X	31 113
33200042	All other fabricated metal products (excluding castings, forgings, fabricated metal pipe, valves, pipe fittings, and all other parts specially designed for steel power boilers) .....2002..	X	153 798
	.....1997..	X	N
33151001	Iron and steel castings (rough and semifinished) .....2002..	X	23 264
	.....1997..	X	35 138
33152011	Nonferrous (aluminum, copper, etc.) castings (rough and semifinished) .....2002..	X	6 085
	.....1997..	X	N
33210000	Forgings .....2002..	X	26 869
	.....1997..	X	N
33120057	Steel bars and bar shapes (excluding concrete reinforcing bars, castings, forgings, and fabricated metal products) .....2002..	X	18 078
	.....1997..	X	31 076
33120016	Steel sheet and strip (including tinplate) .....2002..	X	33 853
	.....1997..	X	N
33120079	Steel plate .....2002..	X	137 509
	.....1997..	X	114 581
33120041	Wide flange steel structural beams .....2002..	X	2 404
	.....1997..	X	16 205
33120047	All other steel structural shapes (excluding sheet pilings, castings, forgings, and fabricated steel products) .....2002..	X	1 926
	.....1997..	X	20 335
33120039	All other steel shapes and forms, including sheet pilings (excluding castings, forgings, and fabricated metal products) .....2002..	X	5 680
	.....1997..	X	30 653
33142135	Copper and copper-base alloy pipe and tube (excluding castings, forgings, and fabricated metal products) .....2002..	X	45 897
	.....1997..	X	63 896
33142141	All other copper and copper-base alloy shapes and forms (excluding castings, forgings, and fabricated metal products) .....2002..	X	14 646
	.....1997..	X	14 860
33131500	Aluminum and aluminum-base alloy sheet, plate, foil, and welded tubing .....2002..	X	31 871
	.....1997..	X	N
33100055	All other aluminum and aluminum-base alloy shapes and forms (excluding castings, forgings, and fabricated metal products) .....2002..	X	9 571
	.....1997..	X	39 488
33100067	All other nonferrous shapes and forms (excluding castings, forgings, and fabricated metal products) .....2002..	X	24 433
	.....1997..	X	12 971
32551002	Paints, varnishes, stains, lacquers, shellacs, japans, enamels, and allied product .....2002..	X	11 823
	.....1997..	X	N
33399203	Welding electrodes .....2002..	X	7 303
	.....1997..	X	41 477
00970099	All other materials and components, parts, containers, and supplies .....2002..	X	238 833
	.....1997..	X	629 612
00971000	Materials, ingredients, containers, and supplies, nsk .....2002..	X	421 478
	.....1997..	X	369 291

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p-10 to 19 percent estimated; q-20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.